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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/996,479

11/27/2001

Paul Francis

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32294

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09/01/2005

SQUIRE, SANDERS & DEMPSEY L.L.P.

14TH FLOOR

8000 TOWERS CRESCENT

TYSONS CORNER, VA 22182

EXAMINER

QURESHI, AFSAR M

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,479

Applicant(s)

FRANCIS ET AL.

Examiner

Afsar M. Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43-46 is/are allowed.
- 6) ☒ Claim(s) 1-42 and 47-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/27/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-9,18-24,26,31-35,37,39-42,47-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Ahmed et al. (US 6,160,804).

Claims 1,18, 23,24,31-35,37,47-53. Ahmad discloses a mobile IP route optimization process, wherein a mobile IP network consists of mobile node 102, attached to the access node and the original access node (see figure 1), to service IP flow. Ahmed further discloses home agents and foreign agents, home agent receives data packets and tunnels them to the care-of-address. Home agent also maintains a table associated with all the mobile nodes. A foreign agent routes data traffic and provides the care-of-address and maintains a list of visiting mobile nodes (see figure 1, col. 2, lines 52 through col. 3, lines 1-8). Each network node 104, attached to mobile end user 102, can also function as router providing wireless access to the mobile terminal (see col. 6, lines 58-61). Ahmed further discloses a table stored in home

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location register (HLR) and a second table, Table II, is a hash table in a node (or access router) that matches mobile's host name and the subnetwork layer address. The subnetwork layer server module receives an IP frame (claims 32-35) (see col. 13, lines 18-65)

Claims 2,3,19,20. Ahmed discloses (figure 4) that each mobile station is assigned a table, containing information such as mobile's host name, mobile's ID.

Claims 4-6. Ahmed discloses methods steps for identifying the new router and the mobile node notifying the network node (router) of the change in the new mobile's address (see col. 19, lines 29-47). Ahmed further discloses routing via tunneling.

Assigning an ID, entering ID into a table and passing down the packet through tunneling, utilizing tunneling routing (see col. 3, lines 65-67, col. 15, lines 16-26, also, col. 18, lines 44-58).

Claims 7-9,21,22. Ahmed discloses that as the mobile moves to another network node (inherently, terminate the IP flow) it notifies HLR in that network node (router) which then update its hash table (See col. 13, lines 39-56 and col. 14, lines 6-56).

Claim 26. As discussed in the rejection of claim 1 above, Ahmed discloses home agent as router that authenticates a mobile node and administers the static IP home address and care-of-address (see col. 2, lines 48-65).

Claims 39-42. All the limitations already addressed in the rejection of claim 1 above, with central node being internode network 108, that includes a plurality of network nodes.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10-17,25,27-30,36,38 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahmed, as above, in view of Brothers et al. (US 6,822,955).

Claims 10-17,25,27,36,38 and 54 Ahmed discloses that RLP server attached to network node 104 (fig. 3A) routes the IP packet through source routing or tunneling that could be transparent or non transparent to end user (see col. 9, lines 17-60, and col. 18, lines 44-58). However, Ahmed does not expressly disclose wherein the server and/or access router is running network address translation (NAT).

Brothers et al. ("Brothers" hereinafter), in the same field of endeavor, disclose a proxy server which is fully or partly transparent, running NAT, wherein NAT is well known process in which traffic is received/transmitted with an arbitrary primary address modified to present the correct IP address to a network router (see col. 4, lines 4-15, figure 19). Therefore it would have been obvious to one of skill in the relevant art, to utilize same server as disclosed by Brothers in the subnetwork area of Ahmed where router and server can be configured to run NAT and forwarding IP flow to corresponding nodes in order to provide transparent IP mobility services in network environment as is desired by Ahmed in yielding an efficient, scalable and flexible communication system.

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Claims 28-30. Ahmed discloses network node (router) monitors packets passing through the node (home agent IP address and mobile node IP address) (see cil. 14, lines 34-37).

As discussed above Brothers discloses proxy address resolution protocol within a proxy server allowing the proxy server to provide full IP client functionality (see Abstract).

3. Claims 43-46 are allowed.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kumaki et al. (US 6,473,411); Perkins et al. (US 5,442,633).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



August 31, 2005

**AFSAR QURESHI
PRIMARY EXAMINER**